DOCUMENT RESUME

ED 279 760 UD 025 373

TITLE	Theodore Roosevelt High School Project TEACH, 1985-1986. OEA Evaluation Report.
INSTITUTION	New York City Board of Education, Brooklyn. Office of Educational Assessment.
PUB DATE	[86]
GRANT	G00-842-5058
NOTE	33p.; Prepared by the OEA Bilingual Education Evaluation Unit. For 1984-1985 report, see ED 272 602.
AVAILABLE FROM	Office of Educational Assessment, New York City Board of Education, 110 Livingston St., Brooklyn, NY 11201.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Asian Americans; Attendance; *Bilingual Education Programs; Business Education; *Cambodians; Computer Literacy; *English (Second Language); High Schools; Parent Participation; *Spanish Speaking; Urban Education
IDENTIFIERS	*New York (Bronx); Project TEACH NY

ABSTRACT

Project TEACH (Technological Enrichment and Achievement for Cambodians and Hispanics) aims to facilitate the students' linguistic and cultural adjustment to American society while preparing them to enter the job market. Carried out at Theodore Roosevelt High School (Bronx, New York) Project TEACH provides students new to America with computer and business training in a bilingual setting. Courses offered include English as a second language, Spanish, bilingual content areas, computer technology, and business. This report evaluates the project as of June 1986, after its second year. Included are a description of the project, student profiles, and conclusions and recommendations. Analysis of the program indicates the following: (1) program students surpassed the proposed English language objective; (2) gains for proposed Hispanic native language objectives were statistically significant; (3) students enrolled in mathematics and computer courses surpassed the program objective of a 70 percent passing rate both semesters; and (4) the attendance rate of program students was significantly higher than that of mainstream students. The report recommends continued efforts to find a Khmer-speaking teacher for the program, since lack of one hampered work with Cambodian students. Also recommended were increasing efforts to make parental involvement a priority. (PS)

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THEODORE ROOSEVELT HIGH SCHOOL

PROJECT TEACH

1985-1986

OEA Evaluation Report

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O.E.A. Evaluation Section Report

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Grant Number: G00-842-5058

THEODORE ROOSEVELT HIGH SCHOOL

PROJECT TEACH

1985-1986

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Project Director:
Carmen Miranda

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A SUMMARY OF THE REPORT

Project TEACH (Technological Enrichment and Achievement for Cambodians and Hispanics) completed the second year of a three-year cycle in June 1986. One of four bilingual projects administered by Theodore Roosevelt High School's department of foreign languages and bilingual education, the project's major goal was to provide students with computer and business training in a bilingual instructional setting.

In 1985-86, the project served 194 newly-arrived students of limited English proficiency (LEP) from the Caribbean, Central America, and Cambodia in grades nine through eleven. Virtually all belonged to low-income families, and many had received only a sporadic formal education in their native countries.

The project offers a wide range of courses, including English as a second language (E.S.L.), Spanish, bilingual content areas, computer technology, and business. The project's computers are increasingly being used to assist students in their academic preparation, as well as to teach them computer technology. Unfortunately, the continued lack of a Khmer-speaking teacher means that the goal of providing students with self-paced, individualized subject-area instruction in a language they can readily understand is being realized more for the Hispanic than for the Cambodian students. The latter are being taught in English totally with some translation provided by Khmer-speaking paraprofessionals.

Title VII funds the program staff, which includes the director, a secretary, two paraprofessionals, a family assistant, and a bilingual computer resource teacher. The project is also served by 33 classroom teachers, six E.S.L. paraprofessionals, and two bilingual guidance counselors funded by tax-levy and Chapter I monies. The project enjoys the whole-hearted support of the principal and administration and will be institutionalized should Title VII funding not be continued.

Support services continue to be one of the project's greatest strengths. The project's two extremely dedicated bilingual counselors and its bilingual family assistant have been supplemented by two additional family assistants provided by the school's Dropout Prevention Program. All of these staff members help students with academic, career, and personal problems.

Staff development was accomplished primarily through outside courses and in-service workshops. In addition, the bilingual computer resource teacher has been heavily involved in teaching staff members to use computers and to devise ways of applying them to content-area instruction. English and E.S.L. teachers, in particular, have been trained to use word processors.

Parental involvement was effected via afternoon and evening E.S.L. and high school equivalency certificate classes, parent-teacher conferences, and project-sponsored theater trips.

Program objectives were assessed in English-language development (Criterion Referenced English Syntax Test); mastery of the native language (Interamerican Series, La Prueba de Lectura); career, computer, and math courses (teacher-made tests); and attendance (school and program records). Because of the lack of a Khmer-speaking teacher, it was not possible to assess Khmer language development as proposed.

Quantitative analysis of student achievement data indicates that:

-- Program students surpassed the proposed English-language objective by mastering more than one CREST skill per month of instruction.

-- Gains for students tested with La Prueba de Lectura were statistically significant, thus meeting the proposed Hispanic native-language objective.

-- Students enrolled in math and computer courses surpassed the program objective of a 70 percent passing rate both semesters.

-- The attendance rate of program students was significantly higher than that of mainstream students, thus again meeting the program objective.

The following are recommendations for improving the project:

-- continue efforts to locate a Khmer-speaking teacher; and

-- make increasing parental involvement a priority item, and improve its quality by using students to bring parents in for classes and by convening the Parent's Advisory Council more frequently.

ACKNOWLEDGEMENTS

The production of this report, as of all Office of Educational Assessment/Bilingual Education Evaluation Unit reports, is the result of a cooperative effort of regular staff and consultants. In addition to those whose names appear on the cover, Eulalia Cabrera has interpreted findings and has integrated material into reports. Arthur Lopatin has edited the reports following the O.E.A. style guide and has written report summaries. Finally, Joseph Rivera, Marcia Gilbert, Bruce Roach, Gladys Rosa, and Martin Zurla have worked intensively as word processors to produce and correct reports. Without their able and faithful participation, the unit could not have handled such a large volume of work and still produced quality evaluation reports.

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PROJECT TEACH
AT THEODORE ROOSEVELT HIGH SCHOOL

Location:	500 East Fordham Road Bronx, New York 10458
Year of Operation:	1985-1986, Second year of Title VII funding
Languages of Instruction:	English, Spanish, and Khmer
Number of Participants:	194
Principal:	Caesar Previdi
Project Director:	Carmen Miranda

I. INTRODUCTION

Since 1975, Theodore Roosevelt High School has offered bilingual educational programs to students of limited English proficiency (LEP). For the most part, these programs have focused upon Hispanics, who presently constitute some 58 percent of the student population. However, in recent years services have also been provided to Roosevelt's rapidly increasing Cambodian population (presently four percent of the student body).

Project TEACH (Technological Enrichment and Achievement for Cambodians and Hispanics), now in its second year, is a bilingual program which has targeted 130 Hispanic and 64 Cambodian students (mainly new arrivals) for computer and business training within a bilingual framework. The major goal of the project is to facilitate the students' linguistic and cultural adjustment to American society while preparing them to enter the job market.

The project operates under the aegis of the department of foreign languages and bilingual education, which also administers three other bilingual programs: a program for Hispanic students, a program for Vietnamese students, and a General Equivalency Diploma (G.E.D.) program. The project is supervised by the department's assistant principal (A.P.). The Project TEACH staff consists of a director, a bilingual computer resource teacher, a family assistant, a secretary, eight paraprofessionals, two bilingual guidance counselors, and 33 teachers. Title VII funds the first four positions plus those of two of the paraprofessionals (one Hispanic and one Cambodian). Chapter I supports six English as a second language (E.S.L.) paraprofessionals. Tax-levy funds pay for the guidance counselors and teachers.

Project TEACH provides instruction in language development and specific content areas. Hispanic students are taught content material (including computer literacy) bilingually. Cambodian students are taught in English, with the assistance of two Khmer-speaking paraprofessionals. All program students receive instruction in music, art, gym, and some business courses in mainstream classes. Six courses of E.S.L. reading are offered; they cover beginning through advanced levels of proficiency and also prepare for transition to mainstream English courses. Seven native language arts courses are offered to the Hispanic students; they range from classes for illiterates to college-level classes. Placement in both E.S.L. and Spanish class is based on the student's language proficiency. Because of the lack of a certified teacher, no Khmer native language courses are currently being offered.

Although English-language use was proposed to range from 10-25 percent for Hispanics and be about 75 percent for Cambodians, the project has no explicit language policy; hence, the actual proportion of English- to native-language use varies with the student's proficiency, the teacher's preparation, the course level, and the availability of materials. The goal, nevertheless, is to gradually increase English use so that the students are ready for mainstreaming by the twelfth grade.

II. STUDENT CHARACTERISTICS

Although the deterioration of the area surrounding Theodore Roosevelt (the South Bronx) has caused enrollments at the school to decline, there has been an increase in the number of Hispanic (particularly Central American) and Cambodian LEP admissions in all grades. Many are recent arrivals and have never been served by Title VII programs.

Limited English proficiency, as indicated by scores on the Language Assessment Battery (LAB) and the Criterion Referenced English Syntax Test (CREST), informal interviews, and teacher-made assessments, are the major means of selecting students. Teacher recommendations, achievement levels, and attendance also are taken into account in determining project eligibility.

The 194 LEP students served by the project come from several Caribbean and Central American countries and from Cambodia (see Table 1). Their eligibility for the free-lunch program indicates that all are from low-income families. Because of socioeconomic conditions and political upheavals in their countries of origin, many project students have a spotty educational background. Consequently, many are overage for their grade level (see Table 2). Although the native language skills of many students have not been fully developed, literacy levels vary widely, from almost nonfunctional to college level.

Project TEACH admits students in grades nine to eleven. In 1985-86, students were almost equally distributed among these three grades. An attempt was made to have equal numbers of males and females, but the project director explained that this was difficult to achieve for the

Cambodians because more male than female children had been sent to the United States.

Staff members and school administrators describe the students in the project as exceptionally cooperative, respectful, and hard-working. Their exemplary behavior is attributed to the reverence for education that they brought from their homelands and the strong desire they have to succeed in their new environment.

TABLE 1

Number and Percent of Program Students by Language and Country of Birth

Language	Country of Birth	Number	Percent
Spanish	Puerto Rico	61	31.4
	Dominican Republic	43	22.2
	Central and South America (country not specified)	26	13.4
Khmer	Cambodia	64	33.0
TOTAL		194	100.0

- Sixty-seven percent of the program students were Spanish speakers; most of these students were from Puerto Rico.
- Sixty-four program students were born in Cambodia.

TABLE 2

Number of Program Students by Age and Grade

Age	Grade 9	Grade 10	Grade 11	Total
14	2	1	0	3
15	5	4	0	9
16	18	20	11	49
17	8	17	21	46
18	6	10	21	37
19	4	8	13	25
20	2	4	11	17
21	0	2	2	4
22	0	1	1	2
TOTAL	45	67	80	192*
Overage Students				
Number	38	42	48	128
Percent	84	63	60	67

*Data were missing for two students.

Note. Shaded boxes indicate expected age range for grade.

- Sixty-seven percent of the program students are overage for their grade.
- The highest percentage of overage students is in grade nine.

III. FINDINGS

The evaluation findings for the 1985-86 academic year include both objectives measurable by standardized test results and those assessed through examination of program material and records, site visits, and interviews with school personnel. Following are the findings related to objectives for the second year as proposed to and accepted by the Office of Bilingual Education and Minority Languages Affairs, U.S. Department of Education.

ENGLISH AS A SECOND LANGUAGE

-- As a result of participating in the program, students will master an average of one English syntax objective per 20 days of instruction.

All program students are required to take E.S.L. and E.S.L. reading daily. Students are placed in elementary, intermediate, advanced, or transitional groups according to their linguistic level, which is determined by the LAB and CREST, teacher-made exams, teacher evaluations, guidance referrals, and interviews. Elementary and intermediate E.S.L. students receive three periods of instruction daily, while advanced and transitional students attend two periods of E.S.L.

Chapter I funds and New York State funds for Pupils with Special Educational Needs (P.S.E.N.) support the E.S.L. teacher and paraprofessional positions, textbooks, materials, and teacher training. A member of the evaluation team observed two E.S.L. classes. The first was a level 5 class composed primarily of Hispanic students, plus a few Cambodians. The class was working on comparatives and superlatives in the Lado text and workbook. There were enough books for every student. The teacher had each student

read exercises and insert the appropriate grammatical forms. He then wrote the correct answers on the board and explained (in English only) any unusual or problematic items. He also made certain that all the students understood the vocabulary. A paraprofessional went around the room checking students' answers and passing out homework sheets. All students appeared to be attending closely to the task at hand. The class was fairly quiet and very cooperative. The teacher's calm, soft-spoken, solicitous manner was crucial to creating an atmosphere that was very conducive to learning.

The second class that was observed was a Level 1 class for Cambodian students. Here the teacher had to respect her students' very special needs by avoiding an excessive emphasis on written English. Her E.S.L. teaching experience was evident in her proficiency in using gestures, physical movements, and drawings to convey meaning. The lesson began with a quick review of the previous lesson on the rooms of a house and then moved on to the English names of human body parts. The teacher spoke rather quickly, stressing natural pronunciation rather than slow articulation. The smiles, giggles, and outright laughter of the students indicated that they were enjoying the effort of pronouncing the words of an unfamiliar language. They especially liked "Simon Says," a game initiated by the teacher to check their recall of the new vocabulary terms. Another very successful teaching game was the drawing of a person, part by part, by individual students who were called to the blackboard and told the English name of the body part they had to draw. A Khmer translation of the rules of "Simon Says" was the only assistance that the paraprofessional provided during this class. Except for this small intervention, the teacher stressed that

only English would be permitted in class. Nevertheless, as might be expected, the students whispered among themselves extensively in Khmer.

Student Achievement in E.S.L.

The assessment instrument used to evaluate the objective in this area was the Criterion Referenced English Syntax Test* (CREST). The CREST was administered at the beginning and end of each semester. A mastery score to indicate gains was computed for each student by calculating the difference between pretest and posttest. The number of months of instruction between testings was computed for each student by multiplying the number of months between testings by the student's attendance rate. The number of skills mastered per month was calculated by dividing the mean mastery by the mean number of months of instruction between testings.

Table 3 presents the test results for students who were pretested and posttested with the same level. Of the students who were reported to be taking E.S.L. classes (levels 1, 2, and 3), complete data (levels, pretest score, and posttest score) were available for 71 percent in the fall and 62 percent in the spring.

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*The Criterion Referenced English Syntax Test (CREST) was developed by the Board of Education of the City of New York to measure mastery of instructional objectives of the E.S.L. curricula, and thus was constructed to maximize content validity. The test contains four items per curricular objective, and mastery of an objective is achieved when three of these items are answered correctly. The test measures mastery of 25 objectives at Levels 1 and 2, and 15 objectives at Level 3. The Kuder-Richardson reliability estimates for pretest and posttest administrations of the three levels of the CREST are:

Level 1 -- pretest (.91)/posttest (.96)
Level 2 -- pretest (.94)/posttest (.95)
Level 3 -- pretest (.91)/posttest (.91).

Examination of Table 3 reveals that the program objective was achieved since, on the average, students mastered more than one CREST skill per month of instruction. Students tested at Level 3 had lower performance rates than those tested at lower levels, partly because fewer skills are tested at that level and partly because mastery of objectives takes longer at that level.

TABLE 3

Results of the Criterion Referenced English Syntax Test

Test Level	Number of Students	PRETEST Mean	PRETEST S.D.	POSTTEST Mean	POSTTEST S.D.	MASTERY* Mean	MASTERY* S.D.	Mean Mastery Per Month
				FALL				
1	68	7.9	5.3	13.0	6.5	5.1	3.8	1.9
2	48	11.9	5.6	16.7	5.3	4.8	2.9	1.9
3	19	7.6	2.6	10.0	2.6	2.4	1.8	1.0
TOTAL	135	9.3	5.5	13.9	6.1	4.6	3.4	1.7
				SPRING				
1	47	10.2	6.4	14.5	6.9	4.3	2.8	1.6
2	43	11.4	6.0	16.2	5.8	4.8	2.7	1.8
3	31	8.2	3.6	10.6	3.7	2.4	1.7	0.9
TOTAL	121	10.1	5.8	14.1	6.2	4.0	2.7	1.5

*Posttest minus pretest.

- On the average, program students achieved the objective of mastering one CREST skill per month of instruction.

NATIVE LANGUAGE ARTS

-- As a result of participating in the program, Spanish-speaking students will show statistically significant gains on La Prueba de Lectura.

Spanish

The Foreign Languages/Bilingual Education Department offers Spanish-language courses to both native and non-native speakers. All Hispanic program students are enrolled in the native language sequence. Placement is based upon La Prueba de Lectura performance and teacher evaluations. Seven types of Spanish courses are offered. They comprise classes for illiterate Hispanic students, classes for slow learners, four levels of regular Spanish instruction for Hispanics, and an advanced placement class.

A member of the evaluation team observed a session of an advanced Spanish literature class. The fully bilingual teacher was guiding the class of 14 students through an analysis of a poem by Jose Marti entitled "Canto de Otono" from the Literatura Moderna Hispanica text. All discussion was in Spanish. The lesson centered on the poem's vocabulary and meaning, and on the broader theme of death. Students answered and asked questions freely and it was a very lively session.

Khmer

The original project proposal included native language arts instruction in Khmer. Unfortunately a suitable instructor has still not been located, so no Khmer-language classes can be offered. However, Khmer is used by the two Cambodian paraprofessionals to assist students in courses taught in English.

Student Achievement in Spanish

The assessment instrument used to measure gains in reading and writing in Spanish was La Prueba de Lectura*, Level 3, Forms C and D. The test was administered in the fall and spring. Because the publishers recommend local norms and programs use off-level testing, analysis was based on raw score gains rather than on standard score gains. The results are presented in Table 4. Complete data on both tests were available for 100 of the Spanish-speaking program students (77 percent). The pretest mean was 70.9 (S.D.=11.2) and the posttest mean was 74.2 (S.D.=11.1).

Statistical significance of the mean gain was determined through the correlated t-test model to demonstrate whether the mean gain is larger than would be expected by chance variation alone. The mean gain was 3.3 (S.D.= 3.2) which was statistically significant. In addition, 88 percent of the students showed pretest to posttest gains. Thus, the program objective was achieved.

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*The Interamerican Series, La Prueba de Lectura is part of the Interamerican Series of Tests published by the Guidance Testing Associates. The purpose of this series is to measure reading achievement in Spanish for Spanish-speaking students from the western hemisphere. The norms for the test were based on a sample of students from Puerto Rico. However, as these norms may not be appropriate for students studying in other countries, the publishers recommend that local norms be developed for the test. As of this date, local norms are not available. The test has alternate form reliability coefficients ranging from .87 to .90, and validity studies indicate that the test has correlations greater than .80 with other standardized tests of reading, and correlations of about .50 with teacher grades, thus indicating construct validity.

CONTENT-AREA SUBJECTS

-- At least 70 percent of the students enrolled in keyboarding or computer courses will attain the criterion level set on teacher-made exams.

-- At least 70 percent of the students enrolled in mathematics courses will attain the criterion level set on teacher-made tests.

For Hispanics, Project TEACH offers bilingual content-area instruction in science, social studies, and mathematics. A member of the evaluation team observed a regents biology class. The class was taught primarily in English, but a Spanish text was available and Spanish use was permitted during discussions. Nevertheless, the class relied heavily on the English-language regents review book because of its succinctness and its direct articulation with the regents exam, which is given in English only.

An American studies class and a global history class were also observed. Both classes were taught in Spanish, and followed the mainstream curricula. The teachers were well-organized and student involvement was lively.

Finally, an evaluation consultant visited two mathematics classes: a pre-algebra class for Cambodians and an integrated math class for Hispanics. The classes differed greatly in student population, level of complexity, and language mode. The pre-algebra class was taught in English with some translation provided by a Khmer-speaking paraprofessional; the integrated math class was taught in Spanish, with a summary and vocabulary review in English. In both cases the students looked interested, participated enthusiastically, and appeared to be learning.

Computer and business education are major program components. A member of the evaluation team visited lecture and lab classes in computer literacy for Hispanics, and a computer applications class for Hispanics and

Cambodians. The computer literacy class was developing and mastering simple programs to accomplish practical aims, such as the calculation of sales tax, gross pay, averages, geometric area, etc. During the lecture class, which met three times a week, the students were taught basic programming; in the computer lab, which met twice a week, they received hands-on experience.

Although these classes were originally intended exclusively for Hispanic students, a number of Cambodians also attended. This required the teacher to use English in lectures; however, he used Spanish more frequently in individual consultations with Hispanic students. Because the textbook is in English and the computer language (BASIC) is rooted in English, the preponderant use of English in this class seems fully justified. The teacher suggested that the use of an English-based computer language probably helps students learn English.

During the lecture classes, the teacher wrote on the board or read from the book, with the students following along. The teacher asked questions in rapid sequence, which the students generally answered quickly. In the computer lab, students worked at terminals individually, with the teacher circulating to check progress and to help de-bug programs.

The computer applications class was structured similarly with lecture and lab sessions. A lecture was the only applications class that was observed. During the session, the class went over a program that was to be run in the computer lab on the following day. English was used predominantly although students were free to converse in Spanish.

Computer education in Project TEACH (and in the school as a whole) was growing rapidly. The project director and the bilingual computer resource

teacher both stated that Roosevelt's was the largest computer program of any comprehensive high school in the Bronx. At present, the school has two rooms with a total of 30 Tandy 1000 personal computers, and three other rooms with 14 IBM PCs, 17 TRS80 PCs, and seven Apple IIe computers, respectively. In most classes, each student has an individual terminal. Two additional Tandy rooms, each with 16 computers, will be set up in September. To facilitate student assessments and to help students develop their editing skills, each room has several printers.

Students purchase disks at a nominal fee and store their programs and work on them. In addition to doing computer-class work, students can use computers during free periods to prepare English and social-studies compositions, write college essays, practice basic math skills, and prepare for tests.

The bilingual computer resource teacher was extremely busy this year adapting English computer materials for LEP students. He created a number of instructional guides, lesson outlines, and review sheets in both English and Spanish. He also acquired Spanish materials from Puerto Rican technical schools and has used them to translate existing English texts. In addition, he collaborated with a Cambodian paraprofessional to produce a Khmer-language glossary of computer terms.

The computer resource teacher also gave in-service computer training to other Project TEACH staff members. The chief result of this instruction was that word processing began to be used extensively in English and E.S.L. classes.

The resource teacher asserted that he was still developing his own computer knowledge and skills by taking courses and by practice on his own.

Since his background was in Spanish, not computers, in the beginning he had to work very hard just to keep one chapter ahead of his students; now, in the project's second year, he finds it much easier to help the students with the basics and to advance beyond them as well. In the opinion of the evaluation consultant, he has been a major force behind the successful functioning of Project TEACH.

Student Achievement in Keyboarding/Computer and Mathematics Classes

Table 4 presents the passing rates for program students in mathematics and keyboarding/computer courses each semester. A weighted average for the year was also computed.

Students met the program objective of a 70 percent passing rate in both subjects both semesters. The highest passing rate was achieved in keyboarding/computer courses (90 percent) in the spring. The lowest passing rate, 72 percent, was achieved by students in fall mathematics courses.

TABLE 4

Passing Rates in Keyboarding/Computer and Mathematics Courses

	FALL		SPRING		TOTAL
Course	Number of Students	Percent Passing	Number of Students	Percent Passing	Overall Passing Rate
Keyboarding/ Computer	66	86.4	128	89.8	88.7
Mathematics	186	71.5	169	81.7	75.7

- The objective of a 70 percent passing rate was achieved in both subject areas both semesters.

ATTENDANCE

-- As a result of participating in the program, students' attendance will be significantly higher than the attendance of mainstream students.

Everyone interviewed, from the principal to the guidance counselors to the family assistant, cited better attendance as one of the project's positive aspects. The general opinion was that, because their linguistic needs were being met and every effort was being made to facilitate their adjustment to American society, the students were strongly motivated to come to school. The individual attention and counseling provided by virtually every staff member appeared to the evaluation team to be the chief factor in motivating students to come to school every day. According to the project director only four students dropped out of the program during the year.

The school uses a taped phone message to make wake-up calls to students who are chronically late and to inform parents about any unexplained absences. The principal stated that this procedure has been very effective in reducing absences and lateness, although it usually was not necessary for the bilingual program students. If a project student had a chronic truancy or lateness problem, the bilingual family assistant conferred with both the student and her/his family to solve whatever problem was causing the truancy. The family assistant reported that program students are generally very responsible and that excessive absences are usually the result of a severe domestic crisis.

In addition to the bilingual project's initiatives to improve attendance, the entire school is currently participating in a Dropout Prevention Program which awards T-shirts, pen and pencil sets, calculators, trips,

etc. as incentives for perfect attendance and for academic achievement. According to the bilingual project director, the bilingual students have won a disproportionate number of these prizes. This confirms the observation that the attendance and retention rates of bilingual students exceed those of mainstream students.

Attendance Outcomes

The statistical significance of the difference between program and school attendance rates was determined through the application of a z-test for the significance of differences in proportions.* This procedure tests whether the difference between one proportion (the attendance of program students) and another (the mainstream attendance rate) is greater than can be attributed to chance variation.

The attendance rate for program students was 89.3 percent, 15.4 percentage points above the schoolwide attendance rate (73.9 percent). The z-test results (z=4.9) indicated that this difference in attendance rates is statistically significant at the .05 level, thus meeting the program objective.

STAFF TRAINING

-- Fifty percent of the staff will be involved in other than in-service training including university courses, professional seminars, workshops, and conferences.

-- One hundred percent of the staff will be involved in in-service training such as the development of computer-assisted curriculum suitable for E.S.L., native language arts, and content areas.

*Bruning, J.L. and Kintz, B.L.; Computational Handbook of Statistics; Scott, Foresman and Company, 1968.

According to the project director, many of the personnel involved in the project were receiving outside training of some kind. A number of the teachers serving the program were developing their bilingual skills and/or seeking additional licenses or certifications. The two Title VII paraprofessionals were enrolled in courses at Lehman College to improve their English and obtain teaching licenses. When they graduate, they will be available to teach in the program. The bilingual computer resource teacher took a course in curriculum development and a course in leadership at City College of New York and attended a computer workshop sponsored by the New York Bilingual Education Multifunctional Support Center (BEMSC) to help him improve his computer classes and provide in-service training for other personnel. The project director enhanced her administrative capabilities by attending workshops and conferences sponsored by the Office of Bilingual Education of the New York City Board of Education, and the New York State Education Department.

In-service staff development included regular staff meetings and three workshops that dealt with effective communication, AIDS, computers, E.S.L., attendance, and school improvement. Only a few staff members were directly involved in computer-assisted curriculum development, notably the E.S.L. and English teachers.

PARENT PARTICIPATION

-- At least 60 percent of parents of student participants will visit the program once during the year to check on the progress of their children.

-- At least 80 parents will participate in the evening classes for high school equivalency preparation, E.S.L. instruction, and/or career/computer training.

Both the project director and the family assistant confirmed that well over 60 percent of the students' parents had come to the school or had been contacted at home regarding their children's progress.

Parents also came to school to participate in two regularly-scheduled parent-teacher conferences, one theater trip, and evening or afternoon E.S.L. and high school equivalency classes. These two courses were offered from October 1985 through June 1986 for a total of 120 hours. According to the attendance sheets, approximately 50 parents participated in the evening classes and 10 attended the afternoon classes, considerably fewer than the hoped-for number. A proposed computer course was not given because of lack of interest.

IV. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

In its second year of operation, Project TEACH appears to be successfully providing high-quality services to its students. The evidence indicates that it will continue performing well in its final year and will attain its long-term objectives.

From formal and informal interviews with the project director, the assistant principal of foreign languages, the bilingual guidance counselors, and the principal, the evaluation team concluded that the project is being smoothly administered and is attaining the great majority of the instructional and resource-development goals set forth in its proposal. The project effectively coordinates its offerings and services with the rest of the school, and generally has developed productive relationships with mainstream staff members. Teachers and paraprofessionals indicated considerable satisfaction with the progress of the project and of the students in their classes. Students also expressed positive feelings about the program and the preparation they are receiving. They were able to achieve the program's objectives in the areas of E.S.L., Spanish language arts, keyboarding/computer, and mathematics classes. In addition, the attendance rate of program students was significantly higher than the schoolwide attendance rate. Although the evaluators were unable to speak directly with parents, attendance figures for parent education classes (though less than desired) and parent-teacher conferences indicate considerable involvement on their part.

In addition, interviews with the bilingual guidance counselors and with students highlighted one of the project's major contributions: its

function as a psychic support mechanism for the students, many of whom have suffered tremendous emotional upheavals because of displacement, separation from families, adverse economic circumstances, and other factors relating to their immigrant experience. This support role is made possible by the unstinting concern of Title VII and other staff members and their availability to provide individual guidance and assistance to students who need help in adjusting to a new language and way of life.

Although the program has been highly successful, it has not been able to provide bilingual instruction for Cambodian students. Despite an intensive effort to locate a suitable Khmer-speaking teacher, none was found; consequently, the program has had to make do with paraprofessionals who interpret for students in classes that are taught in English. The director expressed frustration with the situation but took hope from the fact that at least two Khmer-speaking paraprofessionals are taking college work that will qualify them as bilingual teachers.

RECOMMENDATIONS

Last year's report made a number of recommendations that were followed up during this year's visits. Additional suggestions are as follows:

The evaluation team urges continued efforts to find a Khmer-speaking teacher and recommends that the school contact the bilingual education and sociology departments at Fordham University and New York University for assistance in this matter. Other institutions that might be contacted are the Bureau for Refugee Programs of the U.S. Department of State and the Center for Applied Linguistics, both in Washington, D.C., the Board of Education of Providence, Rhode Island (where some 3,500 Cambodians live), the Chinatown Manpower Project (70 Mulberry St., 3rd fl., NYC 10013), the

Bilingual Education Service Center at Georgetown University, in Washington, D.C., and ARC Associates (310 Eighth St., Suite 220, Oakland, CA 94607), a group involved in research on Asian students.

More efforts should be made to involve parents via adult education classes and the Parent Advisory Council. Except for an additional afternoon class, there was little change in this area. A good source book for ideas on increasing parental involvement is available from the New Jersey State Department of Education. It is called Effective Practices For Successful Bilingual Parent Involvement Programs: An Administrator's Handbook.

As previously recommended, the project has acquired more office space. The project now has two adjoining rooms with table space, a xerox machine, and a computer. All indications are that this has significantly improved program efficiency.